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PATENT

AF/1725

Case Docket No. SUGIM33.001AUS

Date: April 17, 2003

Page 1

In re application of : Koichi Mukasa, et al.
App. No. : 09/851,261
Filed : May 8, 2001
For : LASER WELDING HEAD-
CONTROLLING SYSTEM, A
LASER WELDING HEAD AND A
METHOD FOR CONTROLLING A
LASER WELDING HEAD

Examiner : Len Tran

Art Unit : 1725

) I hereby certify that this correspondence and all
) marked attachments are being deposited with the
) United States Postal Service as first class mail in
) an envelope addressed to: United States Patent
) and Trademark Office, P.O. 2327, Arlington, VA
) 22202, on

April 17, 2003

(Date)

Katsuhiro Arai, Reg. No. 43,315

UNITED STATES PATENT AND TRADEMARK OFFICE
P.O. Box 2327
Arlington, VA 22202

Sir:

Transmitted herewith is an amendment in the above-identified application.

The fee has been calculated as shown below:

CLAIMS AS FILED

	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NO. PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE	ADDITIONAL FEE
Total Claims	11	—	20	= 0 ×	\$9	= \$0
Independent Claims	4	—	4	= 0 ×	\$42	= \$0
TOTAL ADDITIONAL FEE FOR THIS AMENDMENT						\$0

- (X) The present application qualifies for small entity status under 37 C.F.R. § 1.27.
(X) Amendment After Final in seven (7) pages.
(X) Return prepaid postcard.
(X) Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Katsuhiro Arai
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Mukasa, et al.) Group Art Unit 1725
 Appl. No. : 09/851,261)
 Filed : May 8, 2001)
 For : LASER WELDING HEAD-)
 CONTROLLING SYSTEM,)
 A LASER WELDING HEAD)
 AND A METHOD FOR)
 CONTROLLING A LASER)
 WELDING HEAD)
 Examiner : L. Tran)



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AMENDMENT AFTER FINAL

United States Patent Office and Trademark
 P.O. Box 2327
 Arlington, VA 22202

Dear Sir:

In response to the final Office Action mailed January 29, 2003 (Paper number 10), please amend the above-identified application as follows:

IN THE CLAIMS:

Claims 1, 3, 7 and 10 have been amended as follows:

1. (Amended) A laser welding head-controlling system comprising:
 a laser irradiating body with a laser inlet and a laser outlet,
 plural semiconductor lasers to oscillate plural linear laser beams configured to be
 crisscrossed over a seam line for measuring a welding state,
 a CCD camera with a band-pass filter therein to pass through only linear laser beams
 reflected by objects to be welded to take in, as an image, said welding state by said reflected
 beams, and
 an image processor to process said image of said welding state.